REMARKS

Reconsideration of the application in light of the amendments and the following remarks is respectfully requested.

Status of the Claims

Claims 2-10 and 12-18 are pending. Claims 2, 8, and 10 have been amended. No new matter has been added.

Allowable Subject Matter

Applicants appreciatively acknowledge the Examiner's indication that claims 16-18 are allowed, and the indication that claims 7-9 contain allowable subject matter.

Claim Objections

The Examiner has objected to claim 8 for containing informalities. Applicants have amended claim 8 in accordance with the Examiner's suggested claim language. Applicants appreciate the Examiner's assistance in resolving this matter. Reconsideration of the objection is requested.

Rejections under 35 U.S.C. § 103

Claims 2-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,628,609 to Chapman et al. ("Chapman") in view of U.S. Patent No. 6,678,224 to Appanna et al. ("Appanna").

The Examiner contends that Chapman discloses most of the features of the claimed invention. However, the Examiner acknowledges that Chapman does not disclose the following features:

> "a transferring unit operable to transfer the packet received at said packet receiving unit", "a controlling unit operable to judge whether said plurality of queues is in a congestion state or in a non-congestion state", and "wherein said transferring unit is further operable to alternatively transfer the packet received by said packet receiving unit directly to any one of said plurality of queues in the non-congestion state and transfer the packet received by said packet receiving unit of said classifying device in the congestion state."

(Detailed Action, item 2, page 4.) The Examiner relies on Appanna as disclosing each of these features.

With respect to the feature of bypassing the classifying device by "transfer[ring] the packet received by said packet receiving unit directly to any one of said plurality of queues in the non-congestion state," as recited by claim 2, the Examiner states that the disclosure of Appanna describes a classifying device upstream from the Q-node that sets the parameters for classification, and the Q-node performs the classifying because "queuing packets according to a predefined flow policy is synonymous with classifying packets." (Detailed Action, item 8, page 13.) The Examiner further contends that, because the Q-node can bypass the queuing step in a non-congestion state, Appanna discloses bypassing the classifying step in the non-congestion state.

Applicants submit that a person of ordinary skill in the art, in possession of Appanna, would understand that the setting of parameters by the classifying node, as described in Appanna, is how the packets are classified. Indeed, the name "classifying node" identifies the node as where the classifying occurs in Appanna's system. The Q-node acts on these classifications (i.e., set parameters) in accordance with a predefined flow policy. The Q-node does not classify the packets, as contended by the Examiner, but merely sorts them.

Queuing packets is not synonymous with classifying packets, as the Examiner contends. Queuing and classifying are two separate and distinct steps. A packet can be queued without being classified, and a packet can be classified without being queued. The queuing in Appanna is based on the results of the classification, which is performed by the classifying node prior to being queued. (Appanna, column 6, lines 11-14.) Thus, Appanna discloses bypassing the queuing of a packet but does not disclose bypassing the classifying of a packet. Applicants submit that the Examiner has conflated the steps of classifying and queuing by impermissibly relying on the present application as a blueprint in formulating this rejection.

Claim 2 further recites "said transferring unit is further operable to alternatively transfer the packet received by said packet receiving unit directly to any one of said plurality of queues." Thus, as illustrated by **Exhibit A**, regardless of the congestion state, the claimed invention queues each packet into one of the plurality of queues. Thus, packets are always queued, however, it is only in the congestion state that the packets are classified and then queued. In contrast, in Appanna, all packets are classified and then transferred by the transferring unit directly to a data path when the system is in the non-congestion state. Appanna only queues a packet when the system is in the congestion state, as illustrated by **Exhibit B**.

Furthermore, because the classifying device recited by claim 2 is "operable to transfer the packet transferred from said transferring unit to any one of said plurality of queues in accordance with a priority of the packet transferred from said transferring unit," the packets are queued in the plurality of queues according to priority. Thus, the present invention provides that the plurality of queues can be processed based on the priority assigned to each queue. In contrast, the Q-Node in Appanna is "responsible for determining which packet within its queue is the best to send or has the highest priority at a given time." (Appanna, column 5, lines 35-37.) Thus, processing the queue in Appanna requires repeated application of the predetermined flow policy with regard to each packet in the queue to determine which packet is best to transmit, as opposed to simply examining the priority of each queue.

When the state of the system changes from a congestion state to a non-congestion state, the invention recited by claim 2 can immediately bypass the classifying device, and simply process the queues to transmit packets, as illustrated by Figure 3-4 in **Exhibit D**. Appanna, however, does not provide this advantage. By way of example, assume Appanna switches from the congestion state to the non-congestion state while its queue is at least partially filled, as illustrated by Figure 3-1 in **Exhibit C**. Figure 3-2 of Exhibit C illustrates one possible scenario in which, in order to preserve packet ordering and priority, Appanna must continue to route packets through the transferring unit and queue them until the queue is empty. Furthermore, in this scenario, the Q-Node will continue to apply the flow policy with regard to which packet is the best packet to transmit until the queue is empty. Alternatively, as illustrated by Figure 3-3 in Exhibit C, if Appanna immediately bypasses the transferring unit and transmit incoming packet 4

directly to the data path, the packets will be transmitted out of order and potentially high priority packets 1, 2, or 3 will remain in the queue rather than being transmitted ahead of packet 4.

Chapman neither discloses nor suggests any of the features that have been demonstrated above to be missing from Appanna. Thus, the combination of Chapman and Appanna does not recite each and every element of claim 2. Therefore, claim 2 is not obvious over the combination of Chapman and Appanna.

Claims 3-9 depend from claim 2 and recite their own features in addition to those of claim 2. Thus, for at least the reasons discussed above with respect to claim 2, claims 3-9 are not obvious over the combination of Chapman and Appanna.

Claim 10 recites substantially similar features as those discussed above with respect to claim 2. Claims 12-15 depend from claim 10 and recite their own features in addition to those of claim 10. Thus for at least the reasons discussed above with respect to claim 2, claims 10 and 12-15 are not obvious over the combination of Chapman and Appanna.

Reconsideration and withdrawal of the rejection is respectfully requested.
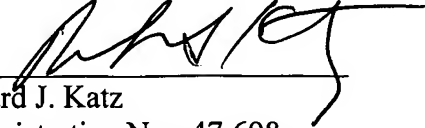
CONCLUSION

Each and every point raised in the Office Action dated January 12, 2006 has been addressed on the basis of the above remarks. In view of the foregoing it is believed that claims 2-10 and 12-18 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Dated: April 12, 2006

Respectfully submitted,

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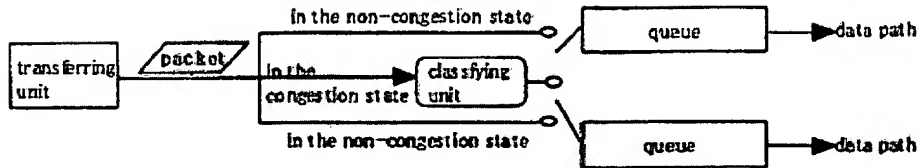Attorneys/Agents For Applicant

Present invention

EXHIBIT B

Appanna

transferring unit — packet — queue (in the congestion state) → data path

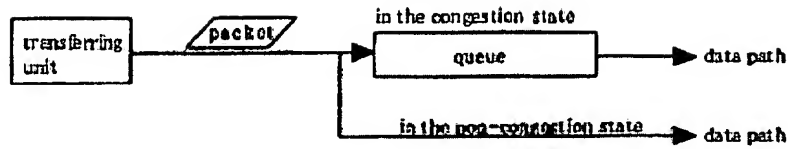in the non-congestion state → data path
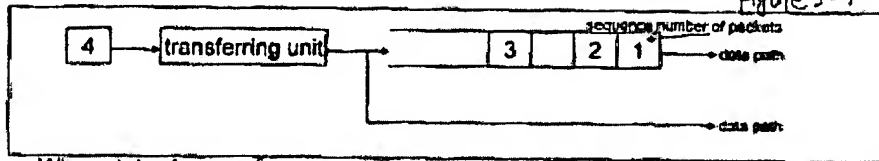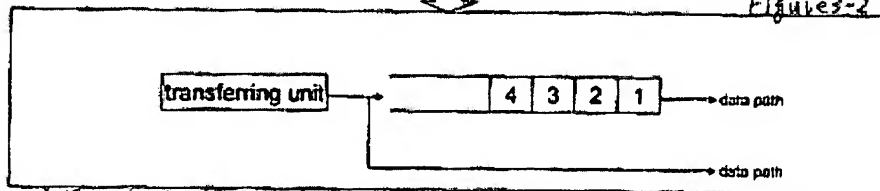
EXHIBIT C
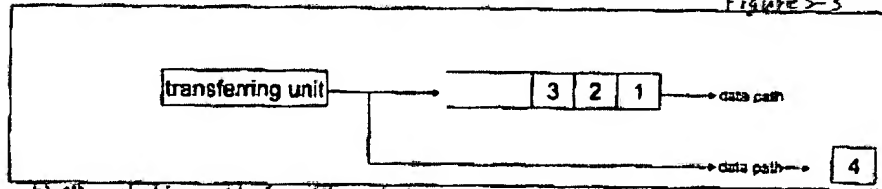
Issue in Appanna

Figure 3-1

When state changes from congestion to non-congestion in the above situation,

Figure 3-2

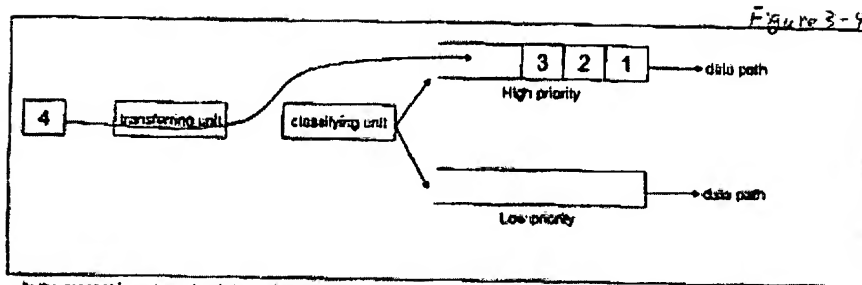a) 4th packet is put after 3rd packet as in the congestion state.

Figure 3-3

b) 4th packet is sent before 1st packet.

EXHIBIT D

Figure 3-4

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          ┌─────────────────────────────────────────────────────┐
          │                                   ┌───┬───┬───┐      │
          │                            ┌──────▶│ 3 │ 2 │ 1 │──▶ data path
          │                            │       └───┴───┴───┘      │
          │                            │        High priority     │
  ┌───┐  ┌──────────────┐  ┌──────────────┐                      │
  │ 4 │──│transferring unit│──│classifying unit│                 │
  └───┘  └──────────────┘  └──────────────┘                      │
          │                            │       ┌─────────────┐    │
          │                            └──────▶│             │──▶ data path
          │                                    └─────────────┘    │
          │                                     Low priority       │
          └─────────────────────────────────────────────────────┘
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In the present invention, classifying unit can be bypassed just after state is changed from congestion to non-congestion.